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Knowledge Management Implementation in Iran's Informal Technical and Vocational Education

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Abstract

Purpose: This research aims to identify the key components for implementing knowledge management in institutions and organizations that offer informal technical and vocational education in Iran. It is an applied research focused on achieving this goal.

Methodology: The research methodology involves a combination of exploratory and qualitative approaches, utilizing meta-composite and Delphi methods. Initial data collection was done using the meta-combination method, analyzing 142 relevant sources and narrowing down to nine studies. Categories were identified through this method and validated using the fuzzy Delphi method with expert input through questionnaires.

Findings: Through text analysis, five categories and seven components were identified, including policy and planning, structure, human resources, process, and infrastructure. Human resources participation, organizational leadership support, and government backing were highlighted as crucial for successful knowledge management implementation.

Conclusion: Human resources involvement, support from organizational leaders, and government backing are essential for establishing effective knowledge management practices in organizations.

Value: This research introduces a novel model for knowledge management in Iran's informal technical and vocational education sector, marking a departure from conventional methodologies. By integrating metacomposition and fuzzy Delphi methods, and gathering insights from experts, this research contributes to the advancement of knowledge in this field.

Key Words: ***Technical and Professional Education, Informal Technical and Professional Education, Knowledge Management Components***

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Extended Abstract

Introduction: Iran's technical and vocational education system comprises both formal and informal sectors aimed at educating and training specialized, skilled, semi-skilled, and efficient human resources to meet the demands of the current and future labor market. The implementation of these training programs involves a diverse range of training personnel (such as coaches, instructors, and trainers) and trainees (including students and apprentices) who require a wide array of knowledge and skills that align with the jobs and qualifications classified under ISCO. According to established documents and laws, informal technical, professional, and skill education refers to the education provided outside the formal education system through specific programs that lead to the acquisition of a certificate of competence and occupational qualification granted by various entities including the Technical and Vocational Education Organization of Iran. In order to effectively implement knowledge management in these organizations, they must organize, share, and apply knowledge to enhance learning and performance, ultimately contributing to the intellectual capital and overall effectiveness. The absence of knowledge management in similar educational organizations in Iran highlights the need for further studies in this area. Therefore, examining the technical and vocational education system, specifically its informal segment, has garnered significant interest as an essential subsystem of the broader education system. While previous research has addressed various aspects of this system, particularly concerning knowledge management, identifying the key components necessary for successful implementation has remained paramount.

Purpose: Knowledge management stands as a critical tool for organizations to achieve their strategic objectives. This research was conducted to outline the components essential for implementing knowledge management in institutions and organizations delivering informal technical and professional education in Iran.

Methodology: A mixed research methodology, including an exploratory qualitative approach and meta-composition method followed by Delphi, was employed for this study. Initially, the meta-composition method was used to identify the primary and sub-categories of knowledge management indicators within non-formal technical and vocational education organizations. Subsequently, these indicators were validated and refined using the fuzzy Delphi method with input from a panel of 20 experts in information science, epistemology, knowledge management, as well as technical and vocational education instructors and managers.

Findings: Through analysis and categorization of descriptive codes obtained from the texts, five main dimensions and seven sub-components were identified. These include categories such as policy and planning (with components like strategies, policies, and programs), structure (encompassing culture, organizational structure, and physical environment), human resources (involving top management and employees), process (centered on knowledge management processes), and infrastructures and capabilities of information and communication technology (including components like knowledge bases, systems, and digital formats).

Conclusion: The study revealed a lack of a formal knowledge management system in technical and vocational education organizations in Iran, emphasizing the necessity for these organizations to prioritize knowledge management implementation. While several indicators and components can be defined for knowledge management in these organizations, this research identified the most critical indicators for potential use. By integrating knowledge management into strategic planning, aligning organizational structures, designing efficient processes, nurturing a knowledge-friendly culture, and emphasizing human resources, organizations can establish an effective knowledge management system.

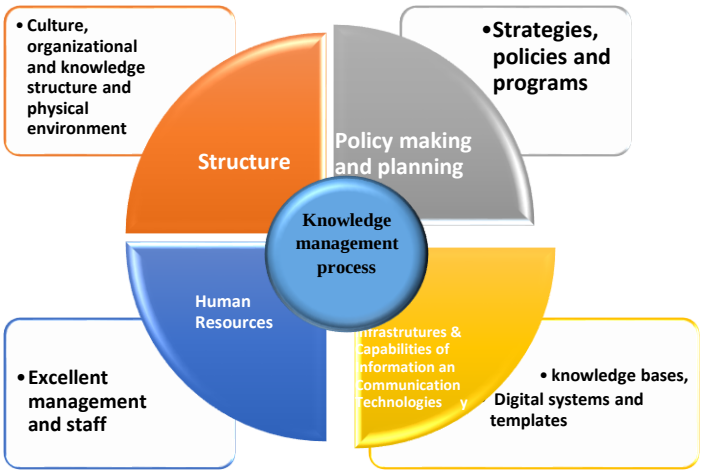

Figure (1). The conceptual model of the research about the dimensions and components of the establishment of knowledge management

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Value: This research presents a novel model for knowledge management in Iran's non-formal technical and vocational education organizations, utilizing innovative methodologies like metacomposition and fuzzy Delphi to gather insights from expert opinions. By contributing original ideas and insights, this study paves the way for further exploration and advancement in the field.

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